STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/ watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at http://www.dnr.wa.gov under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: **Bullet/Pullit** *Agreement #:* **30-76497**

2. Name of applicant: : **Department of Natural Resources**

3. Address and phone number of applicant and contact person: **Candace Johnson**
   DNR Northwest Region
   919 North Township Street
   Sedro-Woolley, WA 98284 (360) 856-3500

4. Date checklist prepared: **6/7/2004**

5. Agency requesting checklist: **Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

   a. *Auction Date:* **3/21/05**
   b. *Planned contract end date (but may be extended:* **9/30/06**
   c. *Phasing:* **Not Applicable.**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
   No.

   Timber Sale

   a. *Site preparation:* **Treatment will be assessed in 2-3 years.**

   b. *Regeneration Method:* **Hand plant with conifer seedlings.**

   c. *Vegetation Management:* **Treatment will be assessed in 3-5 years.**

   d. *Thinning:* **Treatment will be assessed in 10-15 years**

   Roads: **No new roads will be constructed for this proposal.**

   Rock Pits and/or Sale: **Landing construction and road maintenance for the proposed sale will utilize rock in an existing pit located in Section 4, Township 32 North, Range 06 East, W.M.. This pit is likely to be used for future road construction. No other rock pits planned.**

   Other: **None**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐*303 (d) – listed water body in WAU:* ☐*temp* ☐*sediment* ☐*completed TMDL (total maximum daily load):*
☐*Landscape plan:*
☐*Watershed analysis:*
☐*Interdisciplinary team (ID Team) report:*
☒*Road design plan:* **See Northwest Region Office for the Bullet/Pullit Road Plan.**
☒*Wildlife report:* **Region Biologist site visit 3/27/04. Contact Northwest Region Office for wildlife report**
☐*Geotechnical report:*
☒*Other specialist report(s):* **Region hydrologist/geologist site visits 3/23/04 and 4/25/04.**
☐*Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☒*Rock pit plan:* **See the Bullet/Pullit Road Plan for additional information available at the Northwest Region office..**
☒*Other:* **Forest Resource Plan Environmental Impact Statement, July 1992; Final Habitat Conservation Plan, September 1997; State Soil Survey, 1992.**

☐*Other:*

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

☐*HPA* ☐*Burning permit* ☐*Shoreline permit* ☐*Incidental take permit* ☒*FPA #* _____ ☐*Other:*

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. Complete proposal description:

Proposal Area: This proposal is located approximately 14 miles northeast of Arlington, WA. The proposal is on rolling to steep terrain (1650 to 2200 feet elevation) on the northeast flank of Stimson Hill. The proposal comprises 72.5 net acres of mature timber located in Section 32 of Township 33 North, Range 06 East, W.M and Section 5 of Township 32 North, Range 06 East, W.M. The area is surrounded by DNR managed land as well as private forestland. The proposal is located in the Stimson Watershed Administrative Unit (WAU). No watershed analysis has been completed for this WAU. Two buffered perennial streams and a number of smaller ephemeral streams drain the sale. No new roads will be constructed for this proposal. A number of shallow rapid landslides and channelized debris flows exist adjacent to, but excluded from the sale area. These events occurred both before and after the initial harvest ~70 years ago. An estimated 95% of the timber in the proposal will be cable yarded.

Timber Sale Area: The timber sale area (gross acreage minus leave tree areas), as determined by GPS survey, totals 72.5 net acres and 80.8 gross acres.

Total # of Units:	**1**
Estimated volume:	**2,982 MBF**
Type of harvest:	**Regeneration**
Logging system:	**Cable and ground-based yarding**
Landings:	**7**
Rock pits and/or sales:	**1**
Roads:	**None.**

b. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.

Pre-harvest stand description: This proposal is in the West Cascade Hemlock Zone, comprising of stands that were established in the 1930's. This stand is currently in the stem exclusion stage of succession. Species composition and stand volume vary throughout the proposal. A western hemlock/western redcedar timber type dominates the proposal. Patches composed of larger Pacific silver fir and large scattered Douglas-fir can be found in the lower reaches of the stand. Red alder and cottonwood can be found in the riparian areas. Stand volume generally decreases as one travels from the lower to the upper reaches of the proposal. The under-story is sparse consisting mainly of sword ferns.

Type of harvest: A regeneration harvest with 926 legacy trees left scattered and in clumps to remain for at least one more rotation.

Overall unit objectives: Generating revenue for the Agricultural School Trust (04) and the State Forest Board Transfer (01); protecting water quality; maintaining productivity on the site and maintaining wildlife habitat through a leave tree retention strategy. This proposal meets or exceeds all of the guidelines and prescriptions set forth in the DNR Habitat Conservation Plan, Forest Resource Plan, and Forest Practices Rules and Regulations.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		0	0	0
Reconstruction		0		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	0			

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. *(See timber sale map. See also color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:
Section 32 of Township 33 North, Range 06 East, W.M.
Section 5 of Township 32 North, Range 06 East, W.M.
Rock Pit: Section 4, Township 32 North, Range 06 East, W.M.

b. *Distance and direction from nearest town (include road names):*
The proposal is located approximately 14 miles northeast of Arlington, WA.
Directions from Arlington:
Travel on Highway 9 north for 3.4 miles
Turn right onto Grandview Road and travel 4.5 miles
Turn left onto Cedarvale Loop Road and travel 1.5 miles
Turn left onto ST-ML road and travel 4.2 miles

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

WAU/Sub-basin name	WAU/Sub-basin Acres	Proposal Acres
Stimson WAU	**17,716**	**72.5 Net Acres**
Sub-basin 6	**3,444**	**72.5 Net Acres**

13. *Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

The Stimson Hill WAU is comprised of public (i.e., federal, state, municipal, county), tribal, residential, non-industrial and industrial forest, and 7,204 acres of DNR managed lands (41% of the WAU). The DNR manages 2,905 acres (84%) of the 3,444 total acres in sub-basin 6.

Stimson Hill WAU:

Name	Acres	DNR managed acres	% DNR managed land	Non-DNR land	% Non-DNR land
Stimson WAU	**17,707**	**7,204**	**41**	**10,503**	**59%**
Sub-basin 6	**3,444**	**2,905**	**84**	**539**	**16%**

The following table reports timber harvest activity in the Stimson WAU within the past seven years on both DNR managed lands and non-DNR lands. The data was compiled from the Department's Forest Practices' GIS database. This information is based on the best available information as of November 5, 2004.

WAU	DNR harvest acres: Even-aged	DNR harvest acres: Uneven-aged	Non-DNR harvest acres: Even-aged	Non-DNR harvest acres: Uneven-aged
Stimson Hill	**1,048**	**460**	**789**	**589**
Sub-basin 6	**400**	**89**	**10**	**43**

In addition to this proposal, one other harvest proposal approximately 70 acres is proposed in the next year. Future forest management activities in the WAU will include road building, rock pit expansion, silvicultural work and timber harvesting. Activities occurring on DNR managed land will follow Forest Practices Rules, Habitat Conservation Plan (HCP) guidelines, and the Forest Resource Plan – policies designed to minimize environmental impacts.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐Flat, ☐Rolling, ☐Hilly, ☒Steep Slopes, ☐Mountainous, ☐Other:

1) *General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).*
Stimson Hill WAU:
The Stimson Hill WAU is generally facing south with stream flow to the south or southeast. The streams empty into the North Fork of the Stillaguamish River. The slopes in the WAU vary from rolling to steep, with an elevation range of 50 to 2893 feet. Rainfall ranges from 40 to 85 inches annually. In general, this WAU is in the western hemlock zone. Timber types range from hardwood to conifer. The low to mid-high elevations include red alder, bigleaf maple, and/or cottonwood hardwood stands, and Douglas-fir, western hemlock, and/or western redcedar conifer stands. The highest elevations in the WAU are conifer stands generally comprised of Pacific silver fir, western hemlock, and/or western redcedar.

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
The proposed activity area fits the description of the WAU.

b. What is the steepest slope on the site (approximate percent slope)?
Slopes exceeding 90%can be found on approximately 3 acres.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture	% Slope	Acres	Mass Wasting Potential	Erosion Potential
5601	Gravelly Silty Loam	30-65	58	Medium	Medium
0143	Volc. Ash over Glacial till	60-90	10	High	High
1948	Volc. Ash over Glacial till	3-30	8	Low	Low
3306	Volc. Ash over Glacial till	30-65	4	Medium	Medium
0126	Volc. Ash and Glacial Drift Over Bedrock	60-90	1	High	High+

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.
Yes.

1) Surface indications:
Steep-gradient, ephemeral streams are present in the proposal; some stream reaches are deeply incised into the hill slope. These areas have been excluded from the sale area. Portions of the general area originally considered for harvest show evidence of small debris slides on very steep slopes, and marginally stable conditions on steep slopes facing deeply incised stream channels. The potential for failed material to "deliver" to streams appears limited to failures on steep, stream-adjacent slopes, of which none are present in this proposal

2) Is there evidence of natural slope failures in the sub-basin(s)?
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
There is some evidence of small (shallow) slope failures (<0.2 acres) along some of the stream reaches in the Stimson Hill WAU. These are generally associated with stream reaches in steep draws that have formed by cutting through dense glacial till. There is also a recent shallow failure on the upper slopes of Stimson Hill that occurred during the winter storms of 1997/1998. This failure appears to have been caused by a dam-break flood event that started in the SE1/4 NE1/4 of section 31 and flowed into the SW 1/4, NW 1/4 of section 32, T33N, R06E. This area is approximately 1/3 mile north of the current proposal. The NW Region soils specialist notes that large, ancient deep- seated (bedrock involved) failures have occurred on the northeast and south sides of Stimson Hill. There are no areas similar to the site mentioned above located in this proposal.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:
The 1983 aerial photos do show evidence of past failures and some resultant debris torrents (shallow failures) originating at stream crossings on the now abandoned Frailey Mountain Truck Road. Past failures were attributed to large-scale harvest operations, that didn't protect streams with buffers or leave trees. This practice resulted in logging slash and sediment accumulating in and around stream channels. This material gradually moved into stream channels and was directed down stream during peak flow events, creating debris torrents. Additionally, road building practices of this era didn't properly size stream crossing culverts for peak flow events. The combination of these two historical practices resulted in slope failures and debris torrents. Current forest practice regulations protect streams with buffers and leave trees, and culverts are sized for peak flow events.

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?
☐*No* ☒*Yes, describe similarities between the conditions and activities on these sites:*
The streams found in this proposal are on slopes with similar topography; however, the channel, and basin size is much smaller than the failure described in B1d2 (above). All potentially unstable sites have been excluded from the area of actual harvest activity.

5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.
All type 4 waters have been bounded out of the sale area with a 100' buffer placed on each side of the stream. In addition the current proposal follows all Forest Practices rules, the State's Habitat Conservation Plan (HCP) and employs best management practices for protection of the natural resources on the proposal site. The following guidelines will also enhance slope stability protection measures: 1) Portions of the general area originally considered for harvest were excluded from the current proposal, due to evidence of small debris avalanches on very steep slopes, and marginally stable conditions on steep slopes facing deeply incised stream channels; as were any stream reaches with raw (no vegetation, or organic material) banks. Sites that appear to meet the Forest Practices Rules definition of "potentially unstable slopes or landforms" (WAC 222-16-050 (1) (d)) were excluded from the proposal. 2) All cable yarding will require a minimum of one end suspension, in addition falling and yarding away from stream channels where possible. 3) Avoid yarding logs across the Type 4 stream/buffer in the sale area. 4) Directionally fell trees away from incised stream reaches to facilitate protection of stream beds/banks during cable yarding. 5) To the extent feasible, avoid locating cable-yarding corridors that would closely parallel stream channels. 6) When necessary for yarding to cross streams, the bed and banks will be protected by full suspension or by laying logs as cribbing to provide protection.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: **0** *Approx. acreage new landings:* **1** *Fill source:* **NA**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Erosion could occur if hauling, yarding or landing construction were to occur during extremely wet weather.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*
NA

h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)
Yarding and log transportation will be restricted during unfavorable weather conditions, thus reducing the potential of significant ground disturbance and compaction.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.
No emissions are anticipated other than small amounts of equipment exhaust and road dust created by log hauling activities. Landings may be burned.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
Not applicable.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
If slash burning occurs, it will adhere to the state's smoke management act. Dust will be abated on approximately the first 0.5 mile of the ST-ML Road by the use of lignin, water, or a mixture of lignin and water.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map and forest practice base maps.)*

a) Downstream water bodies:
The North Fork of the Stillaguamish River.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Grant Creek	4	1	100'
unnamed	4	1	100'
unnamed	5	5	10'

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.
Type-4 streams will receive 100' buffers on both sides of the stream channel. No harvesting will occur in any of these buffers. Harvesting will take place along type-5 streams, but equipment will be excluded within 30 feet from either side of all type-5 channels.
See B.1.d.5

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map.)*
Description (include culverts):
Timber harvesting and yarding will occur within 200' of the previously mentioned waters, may include cable yarding across type-5 streams.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
No material will be placed in, or dredged from, surface water or wetlands during the course of this proposal.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☒*No* ☐*Yes, description:*

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒*No* ☐*Yes, describe location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒*No* ☐*Yes, type and volume:*

7) Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?

Erosion and mass wasting potential for sub-basin and WAU:

WAU or Sub-basin	Surface Erosion Potential (% of total acreage)			Mass Wasting Potential (% of total acreage)		
	Low/ Insignif.	Medium	High	Low/ Insignif.	Medium	High
Stimson WAU	**43**	**29**	**20**	**52**	**35**	**10**
Sub-Basin 6	**33**	**41**	**25**	**35**	**46**	**18**

See also: B.1.d.1 –B.1.d.4.

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐*No* ☒*Yes, describe changes and possible causes:*
Stream networks in the Stimson Hill WAU contain both high gradient sediment source and sediment transport reaches, and low gradient sediment transport and deposition reaches. Some of the low gradient channels show persistent morphological adjustments. Sediment input to channels is episodic in nature, sometimes causing channel location changes, widening and deposition.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐*No* ☒*Yes, explain:*
The proposed harvest activity should have little affect on stream and water quality. No harvest or road building activity will take place in areas of potential instability. There are buffers protecting all type 4, and portions of type 5 streams and the placement of leave trees will minimize any impacts to water quality.

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*
Stimson WAU: 3.8 road miles per square mile.
Sub-basin 6 WAU: 2.0 road miles per square mile.

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not,* ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☐*No* ☒*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s):

WAU	Total Acres	ROS Acres	% ROS Acres
Stimson Hill	17,707	3129	18
Sub-basin 6	3444	2067	60

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*
Within sub-basin 6 of the Stimson Hill WAU 75% of DNR lands are currently hydrologically mature, this will figure will drop to 71% upon completion of this proposal.

It is not known how many non-DNR acres in the sub-basin are hydrologically mature. These figures are based on the latest information available prior to the proposal's activities.

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:*
It is very difficult to separate out the effects of peak stream flow increases from the effects of mass wasting events. They are interrelated.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*
Due to the fact that the majority of the ROS lands under the management of the DNR are hydrologically mature in the sub-basin where the proposal is located, this project should have no significant influence on peak flow.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒*No* ☐*Yes, possible impacts:*
Due to the protective measures cited in B.1.d.5, significant changes in water amount, quality or movement will not occur.

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*
This project should have no significant influence on peak flow. The project will retain 926 leave trees on site, which will assist in the continued infiltration of water during storm events, somewhat mitigating the influence of removing timber off the site. Also, all perennial water sources were provided 100' no harvest riparian buffers.

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No ground water will be withdrawn.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
Insignificant amounts of oil and other lubricants could be discharged inadvertently as a result of heavy equipment use. No lubricants will be disposed of onsite.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
Runoff from the road surfaces will be collected in ditches and diverted to stable areas on the forest floor through the uses of ditches, culverts, and energy dissipaters. This water should not flow into surface waters.

2) Could waste materials enter ground or surface waters? If so, generally describe.
It is not anticipated that waste material will enter ground or surface water as a result of this proposal.

a) Note protection measures, if any.
Please refer to B.3.c.1.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)
Existing and constructed ditches, cross drain culverts, drain dips, and water bars will be used to control runoff. Roads and landings will be crowned to avoid water accumulations. All activities associated with this proposal will meet or exceed Forest Practices standards and the Habitat Conservation Plan.

4. Plants

a. Check or circle types of vegetation found on the site:

☐deciduous tree: ☒alder, ☒maple, ☐aspen, ☒*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:
☐evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☒*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☒*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:
☐shrubs: ☒*huckleberry,* ☐*salmonberry,* ☐*salal,* ☐*other:*
☐grass
☐pasture
☐crop or grain
☐wet soil plants: ☒cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☐*devil's club,* ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☒other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*
This proposal will remove second growth conifer and hardwood trees on 72.5 net acres, and will be replaced with a young, mixed conifer stand. In accordance with agency procedures, no more than 93% of the standing trees will be removed with this proposal. Some alteration of shrubs and ground vegetation may occur during the course of harvest activity.

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")
Roughly 70-year-old conifer stands similar to those described in A.11.b make up the northern, southern, and western boundaries and portions of the eastern boundary. The remaining portions of the eastern boundary are made up of young stands ranging from 5-10 years old. The far southwestern boundary timber type is composed of an older more decadent stand of western hemlock.

2) Retention tree plan:
Legacy and reserve tree levels were determined in accordance with DNR Forestry Handbook Procedure PR 14-006-090 (May 2000).

Nine clumps consisting of 820 leave trees and 106 individually scattered leave trees totaling 926 leave trees will be retained on site. This exceeds the required leave tree requirements by 106 trees. An additional 106 leave trees were required to meet both HCP wildlife tree distribution requirements and Labor and Industry leave tree/snag requirements.

Retention trees are both scattered and clumped to provide a wide variety of upland habitat diversity. Trees selected for retention are generally both in the dominant or co-dominant crown classes, containing structural characteristics important to wildlife, and indicating wind firmness. Leave tree clumps are tagged with yellow "Leave Tree Area" tags and blue butt-spots. Scattered leave trees are painted with blue rings.

c. List threatened or endangered *plant* species known to be on or near the site.
None Known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
None.

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon,* ☐other:
mammals: ☒deer, ☒bear, ☐elk, ☒beaver, ☐other:
fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes,* ☐*caves,* ☐*cliffs,* ☐*oak woodlands,* ☐*balds,* ☐*mineral springs*

b. List any threatened or endangered species known to be on or near the site *(include federal- and state-listed species).*
The nearest marbled murrelet occupied detection is 6500' NE; the nearest (presence) detection is 3800' E/SE.

Reclassified murrelet habitat (suitable, but no detections after 2001-02 surveys) was bounded out of the SW corner of the proposal.

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*
All of Washington State is considered part of the Pacific flyway. No impacts are anticipated as a result of this proposal.

d. Proposed measures to preserve or enhance wildlife, if any:
Trees left will consist of dominant, co-dominant, and structurally unique trees. Leave trees will be scattered and clumped. Large unique redcedar snags (up to 140' tall) can be found in the southwest corner of this proposal. Labor and Industry snag requirement rules were applied in an attempt to keep them standing. Buffers placed on the type-4 streams provide cover and travel corridors for wildlife, as well as protecting streams from sediment and temperature inputs for downstream fish habitat.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Does not apply.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
Does not apply.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
Does not apply.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
There is minimal hazard due to heavy equipment operations. There is a slight chance of hydraulic or oil spills from the heavy equipment that will be operating on the site. There is a potential fire hazard if operating in moderate fire weather conditions during summer months.

1) Describe special emergency services that might be required.
None.

2) Proposed measures to reduce or control environmental health hazards, if any:
Safe operation of all equipment will be encouraged. Industrial restrictions/precaution levels regarding forest fire protection will be enforced. The timber purchaser will be required to have fire suppression equipment on site during the restricted fire season while harvest activity is going on.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
Noise from log trucks and logging equipment will be present while operating during daylight hours.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
Noise from road construction and harvest activity will be present in the immediate vicinity of this proposal during the course of operations. Noise from log hauling will be present along the haul routes during the course of operations.

3) Proposed measures to reduce or control noise impacts, if any:
None. Noise associated with harvest and road construction activity will not be audible anywhere but in the immediate vicinity of the proposal. Noise from log hauling is an historic activity in the area and should not be present above customary levels.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? *(Site includes the complete proposal, e.g. rock pits and access roads.)*
Forest management.

b. Has the site been used for agriculture? If so, describe.
No.

c. Describe any structures on the site.
None.

d. Will any structures be demolished? If so, what?
No.

e. What is the current zoning classification of the site?
Commercial forest land.

f. What is the current comprehensive plan designation of the site?

Industrial forestry.

g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.
No.

i. Approximately how many people would reside or work in the completed project?
None.

j. Approximately how many people would the completed project displace?
None.

k. Proposed measures to avoid or reduce displacement impacts, if any:
None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
The design of this project is consistent with current comprehensive plans and zoning regulations.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
None.

c. Proposed measures to reduce or control housing impacts, if any:
Does not apply.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
Does not apply.

b. What views in the immediate vicinity would be altered or obstructed?

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☒*No* ☐*Yes, viewing location:*

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒*No* ☐*Yes, scenic corridor name:*

3) How will this proposal affect any views described in 1) or 2) above?
The proposed area will be consistent with other younger stands of the area.

c. Proposed measures to reduce or control aesthetic impacts, if any:
Does not apply.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Does not apply.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.

c. What existing off-site sources of light or glare may affect your proposal?
None.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
No designated recreational opportunities currently exist. Informal use may include hunting, ORV riding, hiking, mountain biking, and horseback riding.

b. Would the proposed project displace any existing recreational uses? If so, describe:
The road systems associated with this proposal are currently gated and closed to vehicle use. Use of the sale area by other users may be limited during the course of operations due to safety/security concerns. No permanent displacement of existing use will occur as a result of this proposal.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None. No permanent displacement of existing use will occur as a result of this proposal.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
None identified in DNR's TRAX system.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None known.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
Does not apply.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Highway 9, Graindview Road and Cedarvale Loop Road are all public roads used to access this site.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?
There is no indication that this proposal will contribute to such a problem. As the proposal is located in a rural area, traffic is minimal. All public roads accessing the area are paved, so use of these roads should not contribute to dust or maintenance problems. Log truck traffic is consistent with the existing transportation patterns.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No.

c. How many parking spaces would the completed project have? How many would the project eliminate?
None.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?
Apart from log hauling during the course of operations, this proposal will have no impact on the overall transportation system in the surrounding area.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

For management purposes, 0.04 trips per day (approximately once a month), for the first 5-10 years after the completion of the proposal.

g. Proposed measures to reduce or control transportation impacts, if any:
Safe operation of vehicles will be encouraged.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
No

b. Proposed measures to reduce or control direct impacts on public services, if any.
Access will be restricted as needed during periods of extreme fire danger.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
Does not apply.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
Does not apply.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by: J Hutton STARBIRD UNIT FORESTER, Date: 6-10-04
Title

Reviewed by: Jamie Byrd Cascade Dist. Mgr., Date: 6/16/04
Title

Approved by: Nicholas V Mucha for Candace Johnson, Date: 12/1/04
Title Assistant Region Manager